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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/862,374

05/22/2001

Yuzuru Suzuki

SUM-02201

8694

26339

7590

09/07/2004

PATENT GROUP

CHOATE, HALL & STEWART

EXCHANGE PLACE, 53 STATE STREET

BOSTON, MA 02109

EXAMINER

AGUIRRECHEA, JAYDI A

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/862,374

Applicant(s)

SUZUKI ET AL.

Examiner

Jaydi A. Aguirrechea

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8,9 and 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-5,7,10,15,16 and 21 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 16 is objected to because of the following informalities: at the end of line 2, delete "of" and insert "or". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7, 15-17 and 21 rejected under 35 U.S.C. 102(b) as being anticipated by US4422060 to Matsumoto et al. (hereinafter Matsumoto).

Matsumoto discloses an electromagnetic actuator comprising a stationary assembly that includes a hollow stator yoke member (31) composed of a soft magnetic material (Col. 3, lines 15-16); and two coils disposed coaxially inside the stator yoke (Figure 1).

Matsumoto discloses a movable assembly disposed in a hollow space of the two coils. The movable assembly comprising a magnet (59) and a movable yoke unit (55); both units mounted on a single shaft. Matsumoto discloses the movable assembly being movable in the axial direction by the interaction of the magnetic field and the current in the coils. The movable unit disclosed by Matsumoto opposes the coils radially.

Matsumoto disclose two separate bobbins having identical shape with the respective coils wound thereon.

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With regards to claims 4 and 15, the stator yoke of the stator assembly is a hollow cylinder and the two coils are ring shaped and wound on the respective bobbins; a pair of flanges (end walls 33) and bearing mechanisms (39) are provided (Figure 1).

With regards to claims 5 and 16, Matsumoto's magnet is magnetized in the axial direction and the yokes have identical shape and sandwich the magnet unit.

With regards to claims 7, 17 and 21, Matsumoto's magnet has a smaller diameter than the yoke unit.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto.

Matsumoto discloses the claimed invention except for movable assembly comprising the same number of pairs of a movable magnet unit as the number of paired coils.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a plurality of magnets and a plurality of coils, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 PSQ 8. In the instant case, it is well known in the art the equivalence of using one magnet or multiple magnets to produce a constant magnetic field.

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Allowable Subject Matter

6. Claims 8, 9 and 18-20 are allowed.
7. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The references of the Prior Art of Record fail to teach or suggest either alone or in obvious combination the limitations as set forth in claim 1, and specifically comprising the limitation of the movable magnet unit sandwiching the movable yoke unit.

Response to Arguments

8. Applicant's arguments with respect to claims 1-7, 10, 15-17 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.
10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the


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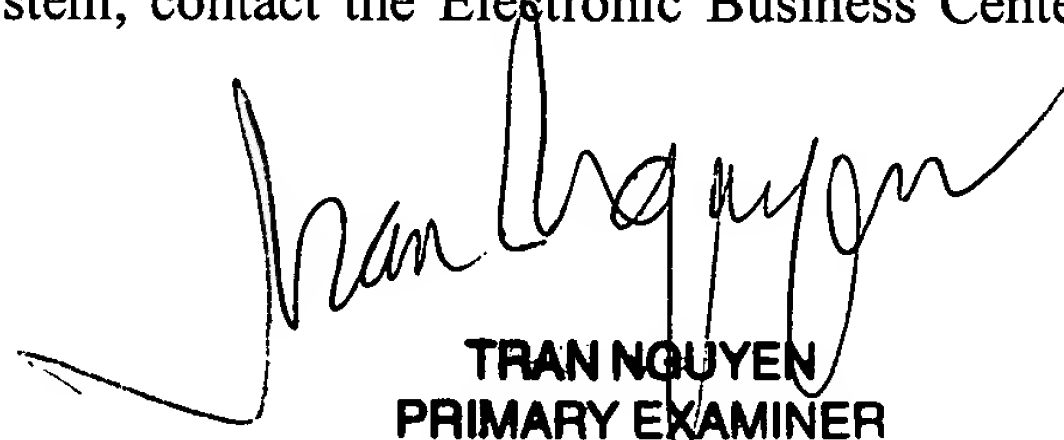
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaydi A. Aguirrechea whose telephone number is 571-272-2018. The examiner can normally be reached on M-Th 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JAA
8/24/04


TRAN NGUYEN
PRIMARY EXAMINER